SLEEP, SLEEP DISORDERS, AND BIOLOGICAL RHYTHMS

Delaware Science GLEs: Grades 9 – 12

Lesson	GLE	Descriptor
1, 2, 3	1.1	Identify and form questions that generate a specific testable hypothesis that guide the design and breadth of the scientific investigation.
1, 2, 3	1.2	Design and conduct valid scientific investigations to control all but the testable variable in order to test a specific hypothesis.
Pre-lesson, 1, 3	1.3	Collect accurate and precise data through the selection and use of tools and technologies appropriate to the investigations. Display and organize data through the use of tables, diagrams, graphs, and other organizers that allow analysis and comparison with known information and allow for replication of results.
1, 2, 3	1.4	Construct logical scientific explanations and present arguments which defend proposed explanations through the use of closely examined evidence.
1, 2, 3	1.5	Communicate and defend the results of scientific investigations using logical arguments and connections with the known body of scientific information.
Pre-lesson, 1, 3	1.6	Use mathematics, reading, writing and technology when conducting scientific inquiries.
1	3	Illustrate how nerve cells communicate with each other to transmit information from the internal and external environment often resulting in physiological or behavioral responses.
1, 3	3	Draw a schematic to illustrate a positive and negative feedback mechanism that regulates body systems in order to help maintain homeostasis.
3	3	Describe how environmental factors (e.g., UV light or the presence of carcinogens or pathogens) alter cellular functions.
4	7	Explain that mutations in the DNA sequence of a gene may or may not affect the expression of the gene. Recognize that mutations may be harmful, beneficial, or have no impact on the survival of the organism.

Delaware Mathematics GLEs: Grades 9 & 10

Lesson	GLE	Descriptor
Pre-lesson, 1, 3	1	Determine the appropriateness of an answer by using number sense or estimation.
Pre-lesson, 1, 3	1	Select and use appropriate methods and tools for computing from among mental computation, estimation, calculators, paper and pencil, and computers according to the context and nature of the computation.
Pre-lesson, 1, 3	2	Determine the appropriateness of linear models given a real world situation.
Pre-lesson, 1,	2	Demonstrate a conceptual understanding of correlation.

Pre-lesson, 1, 3		
3		
Pre-lesson, 1, 3	4	Select and interpret the most appropriate display for a given purpose and set(s) of data (e.g., histograms, parallel box plots, stem-and-leaf plots, scatter plots).
Pre-lesson, 1, 3	6	Select and use various types of reasoning and methods of proof.
Pre-lesson, 1, 3	7	Communicate mathematical thinking coherently and clearly to peers, teachers, and others.
Pre-lesson, 1, 3	7	Use the language of mathematics to express mathematical ideas precisely.
Pre-lesson, 1, 3	8	Recognize and use connections among mathematical ideas.
Pre-lesson, 1, 3	8	Recognize and apply mathematics in contexts outside of mathematics.

Delaware Reading and Research GLEs: Grade 10

Lesson	GLE	Descriptor
All lessons	2.1	Apply and use the meanings of high frequency Greek and Latin derived roots and affixes to determine the meaning of unknown words.
All lessons	2.3a	Use "During Reading" strategies by assimilating prior knowledge, making and revising predictions, generating and answering questions, summarizing, rereading to clarify information, adjusting reading rate, inferring information, using mental imagery, seeking the meaning of unknown words, and analyzing story/literary elements and text structure.
All lessons	2.3c	Explain personal connections to the ideas or information in the text(s).
All lessons	2.3c	Restate in own words the main events in the text.
All lessons	2.3c	Using a graphic organizer or other note taking technique to record important ideas or information.
All lessons	2.4bI/T	Apply essential information from text features (e.g., title, author, cover, pictures, captions, maps, chapter headings, information from charts and graphs, illustrations, glossaries, indices) to enhance understanding of text.
All lessons	2.4bI/T	Analyze text structures in informative/technical texts (sequence/chronological order, classification, definition, process, description, comparison, problem/solution, simple cause/effect) to make meaning of text.
All lessons	2.4bI/T	Analyze the unique features of various informative texts (e.g., newspapers, magazines, product information, consumer materials, manuals, editorials) to enhance understanding of the text.
All lessons	2.4d	Summarize the main ideas and supporting details in an informative/technical text.
1, 2, 3, 4	2.4d	Restate in order the steps of a task in an informative/technical text.
1, 2	2.4f	Create meaning from a variety of media.
All lessons	2.4h	Discriminate between facts and/or subtle opinions in text(s).

All lessons	2.4h	Identify facts in a text and determine their relevance to the issue.
All lessons	2.4h	Question information in a text to determine if it is factual.
All lessons	2.4i	Make strongly implied inferences about content and concrete ideas in a text and identify appropriate text support.
All lessons	2.4i	Use the combination of background knowledge and explicitly stated information from the text to answer questions they have as they read.
All lessons	2.4i	Make connections between conclusions they draw and other beliefs or knowledge.
All lessons	2.4k	Draw on prior knowledge and experience to connect personally to text (text-to-self connections).
All lessons	2.4k	Draw on prior knowledge of the world (other books, television, movies) to make text-to-world connections.
All lessons	2.5a	Connect and synthesize information from increasingly different sources to generate new information/new ideas or expand prior knowledge (text-to-text and text-to-self connections).
All lessons	2.5b	Analyze information in a text to develop a logical opinion.
All lessons	2.5d	Draw conclusions (including implied main ideas) that require analysis and/or evaluation.
All lessons	2.5f	Evaluate how persuasive techniques and author's choices (e.g., word choices) shape readers' understandings.
All lessons	2.5f	Analyze the completeness, accuracy and/or clarity of the information in a complex text.
All lessons	2.5f	Identify and evaluate information that needs to be checked for accuracy (e.g., data, statistics, and sources) and evaluate the credibility of sources.
1, 2, 4	3.1a1	Use multiple sources of information (books, television, videos/DVDs, resource people, cassettes, dictionaries, recordings, encyclopedias, and available databases).
1, 2	3.1a1	Use teacher-selected Internet sites and databases to access information.
All lessons	3.1a2	Organize and interpret gathered information using various graphic organizers.
All lessons	3.1a2	Relay facts from research.
All lessons	3.2b	Present gathered information in an oral or written format, which uses sentences organized in paragraph form to tell about a designated topic, incorporates information from more than one source, includes information relevant to topic and purpose, identifies source of information, fulfills the identified purpose as clearly indicated in the thesis statement, utilizes an organizational plan for combining paragraphs to address a designated purpose and topic, incorporates information from multiple sources, and summarizes and/or paraphrases information from sources.
All lessons	3.3b2	Draw conclusions (including implied main ideas) that require analysis and/or evaluation.
Delaware Writing and Oral Communication GLEs: Grade 10	
Lesson	**GLE**	**Descriptor**
All lessons	1.1	Writers will produce texts that exhibit the following text features, all of which are consistent with the genre and purpose of the writing: development, organization, style, and word choice.
All lessons	1.2	Writers will produce texts that exhibit the following language conventions at all grade levels: sentence formation, conventions.
All lessons	1.3	Writers will produce examples that illustrate the following classifications: by the completion of the grade, writers will be able to

		write persuasive, informative, and expressive pieces.
5	**1**	Students understand that persuasive writing is audience-centered; the needs of the intended audience are the most important consideration. Students understand that persuasive writing involves taking a position on a debatable issue to convince an audience.
1, 2, 3, 4	**1**	Students understand that informative writing is subject-centered; the need to communicate information clearly so that the audience can understand the content/subject is the most important consideration.
5	**1**	Acknowledge reader's positions or beliefs about ideas or issues, understand implications for the writer, and adjust content accordingly.
5	**1**	Write to audiences that can be increasingly distant and abstract (e.g., unknown audiences such as politicians, leaders/owners of businesses [CEOs], in addition to more familiar "others" from previous grades).
All lessons	**1**	Students self-select appropriate forms and/or respond to assignments for a variety of occasions.
All lessons	**1**	Present a clear defensible position that supports, opposes, or qualifies the issue/question.
5	**1**	Support position with reasons that could include relevant facts, statistics, credible personal and expert opinions, examples, and/or insightful commentary.
All lessons	**1**	Text-based writing: combine information from text and prior knowledge to elaborate upon ideas in writing (text-to-self, text-to-text, text-to-world connections) that reveal to the reader the writer's depth of understanding of the issue.
All lessons	**1**	Provide relevant information, reasons, and/or details to elaborate or clarify the subject (e.g., personal opinion based on experience/ observation, verifiable facts, examples, explanations, definitions).
All lessons	**1**	Text-based writing: combine information from text and prior knowledge to elaborate upon ideas in writing (text-to-self, text-to-text, text-to-world connections) that reveal to the reader the writer's depth of understanding of the topic.
5	**1**	Persuasive writing: Develop a conclusion that moves beyond summary (e.g., "call to action" or "next step," answers the "so what?" question about the significance of the issue, raises related issues or consequence of non-action, provides perspective).
All lessons	**1**	Informative writing: Develop a conclusion that moves beyond summary (e.g., reinforcing the importance of the information, raising related issues, and/or generating a new hypothesis).
All lessons	**1**	Use Standard Written English conventions (and when appropriate, variations thereof) to achieve purpose and create effective style and voice. Deviations from SWE (e.g., dialect, slang) should have a specific rhetorical function.
All lessons	**1**	Use active and passive voice appropriately and consistently.
All lessons	**1**	Spell frequently used words correctly, and use effective strategies for spelling unfamiliar words.
All lessons	**1.4**	Orally communicate information, opinions, and ideas effectively to different audiences for a variety of purposes.
All lessons	**1.4**	Choose words and use voice appropriate to audience and purpose (e.g., inform, persuade, entertain).
All lessons	**1.4**	Speak and listen for a variety of audiences (e.g., classroom, real-life) and purposes (e.g., awareness, enjoyment, information, problem solving).
All lessons	**1.4**	Share impromptu remarks about topics of interest to oneself and others.
All lessons	**1.5**	Listen to and comprehend oral communications.

All lessons	1.5	Follow basic directions
All lessons	1.5	Listen attentively by making eye contact, facing the speaker, asking questions, and paraphrasing what is said.
All lessons	1.5	Ask and respond to questions from teachers and other group members.
All lessons	1.5	Summarize and explain information conveyed in an oral communication accounting for key ideas, structure, and relationship of parts to the whole.
All lessons	1.5	Distinguish among purposes for listening (e.g., gaining information, being entertained) and take notes as appropriate.
All lessons	1.6	Develop vocabulary and the ability to use words, phrases, idioms, and various grammatical structures and means of improving communication.
All lessons	1.6	Give and follow oral directions.
All lessons	1.6	Use complex sentence structure.
All lessons	1.7	Participate effectively in a discussion.
All lessons	1.7	Participate in a variety of roles in group discussions (e.g., active listener, contributor, discussion leader).
All lessons	1.7	Listen attentively, demonstrating respect for the opinion of others.
All lessons	1.7	Explain opinions by citing evidence and referring to sources.
All lessons	1.7	Participate in discussion without dominating.

Delaware Health Education GLEs: High School

Lesson	GLE	Descriptor
1, 4	AOD:2.2	Know the physical, social and emotional effects of AOD use.
5	INJ:3.3	Know strategies for not riding with an impaired driver.
1, 3, 5	EH:1.4	Know how to accept personal responsibility for behavior.
5	EH:3.4	Know skills to resist peer pressure, negotiate and compromise, advocate for needs and rights of others, and advocate for a healthy social environment.
4, 5	EH:5.5	Know valid sources of information and help.
4	PCH:2.2	Know the role of genetics in the family history of disease.